REMARKS

Claims 1 - 6, 8 - 19, and 23 - 26, and 30 - 32 are pending in the present case. No claims are amended herein. Claims 7, 20-22, 27-29, and 33 were previously cancelled. No new matter has been added.

Objection to the Specification

The present office action objects to the disclosure due to an informality in the specification. In particular, the Office Action indicates, "Line 12 of the specification seems to include a typographical error. Specifically, 'by' appears to have been used in error. Appropriate correction is required."

Applicant has searched line 12 on every page of the specification, and is unable to find an instance of the word "by" being used in error. Of note, in the entire specification, the word "by" is only used one time on line 12 of a page. In this single instance on page 19, the specification recites, "Preferably, each time a transaction 100 is processed <u>by</u> a front-end server (e.g., 121), the time is updated in field 610 for the category thereof," emphasis added. Applicant submits that this use of the word "by" is grammatically and syntactically correct, and therefore needs no correction.

35 U.S.C. Section 103(a) Rejections

Claims 1-6, 8, 10-13, 15, 16, 18, and 23-26

Claims 1-6, 8, 10-13, 15, 16, 18, and 23-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,128,657 by Okanoya et al., hereinafter referred to as the "Okanoya" reference in view of United States Patent No. 6,173,322B1 by Hu. Applicant has reviewed the cited references and respectfully submits that the present invention,

as recited in Claims 1-6, 8, 10-13, 15, 16, 18, and 23-26, is patentable over the combination of

Okanoya and Hu for the following rationale.

Applicant respectfully directs the Examiner to independent Claim 1 that recites that an

embodiment of the present invention is directed to (emphasis added):

> A method for routing a transaction to a front-end server, comprising:
> identifying at least one attribute-based category for said transaction;
> attempting to identify at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute- based category; and
> when at least one of the front-end servers is identified, routing said transaction to one of said at least one identified front-end server;
> when no front-end server is identified, routing said transaction to a default one of the front-end servers; and
> <u>determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers.</u>

Independent Claim 10 recites similar limitations and is rejected with the same rationale as Claim

1. Claims 2-6, 8, and 23-26 that depend from Independent Claim 1 and Claims 11-13, 15, 16,

and 18 that depend from Independent Claim 10 provide further recitations of the features of the

present invention.

Applicant respectfully submits that Okanoya does not disclose, "<u>determining whether the</u>

<u>transaction is associated with a new attribute-based category, and if so, assigning the new</u>

<u>attribute based category to one of the front end servers</u>", as claimed (emphasis added). Rather,

the Applicant submits that the Okanoya reference is silent regarding "<u>determining whether the</u>

<u>transaction is associated with a new attribute-based category, and if so, assigning the new</u>

attribute based category to one of the front end servers", as claimed (emphasis added). For this reason, Applicant submits that the Okanoya reference does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Furthermore, Applicant respectfully asserts that the combination of Okanoya and Hu fails to teach or suggest the claimed embodiments because the Hu reference does not overcome the shortcoming of Okanoya discussed above. Instead, Applicant respectfully submits that the Hu reference is also silent regarding the limitation of "determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers", as claimed (emphasis added). For this reason, Applicant submits that the combination of Okanoya in view of Hu does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Per Applicant's understanding the Hu reference describes a proxy module 210 handling a failure of a content server 106 by determining by querying from a policy module for a new content server 106 and if none is available forwarding the request to a default content server 106. The Hu reference indicates that the default content server 106 services client requests from any proxy module 210 which was unable to provide a content server 106 to service the request. See e.g., col. 11, line 60 - col. 12, line 9 of Hu. However, per Applicant's understanding, the Hu reference is silent with respect to, "determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers", as claimed (emphasis added).

Per Applicant's understanding, when a failure occurs in Hu, a client request is sent to a policy module 206 or a default policy module 206 of Hu. See, e.g., col. 11, line 60 - col. 12, line 9 of Hu. However, Applicant understands that a policy module 206 of Hu merely selects a content server from a grouping of content servers based upon a dynamic metric that includes a measurement of each content server's available processing capacity (see e.g., col. 9, lines 1-28 and figures 7, 8A, and 8B of Hu). Thus, per Applicant's understanding, the policy module 206 of Hu does not teach, suggest, or perform an action of, "determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers", as claimed (emphasis added). For this reason, Applicant submits that the combination of Okanoya in view of Hu does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10. As such, Applicant submits that Claims 1 and 10 are allowable of the rejection under 35 U.S.C §103(a).

Therefore, for at least the rational discussed above, Applicant respectfully submits that the combination of Okanoya in view of Hu also does not teach or suggest the additional claimed features of the present invention as recited in Claims 2-6, 8, and 23-26 that depend from Independent Claim 1 and Claims 11-13, 15, 16, 18 that depend from Independent Claim 10 As such, Applicant respectfully submits that these Claims also overcome the rejection under 35 U.S.C. §103(a), and are in a condition for allowance as being dependent on allowable base claims.

Claims 9 and 19

Claims 9 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Okanoya in view of Hu (as applied to Claims 1 and 10) and further in view of U.S. Pat. No. 6,681,244B1 of Cross et al. (herein after the "Cross" reference). Applicant has reviewed the cited references and respectfully submits that the present invention is not rendered obvious by Okanoya in view of Hu and further in view of Cross.

Applicant respectfully states that Claims 9 and 19 are dependent from allowable Independent Claims 1 and 10 respectively. Applicant further submits that the Cross reference does not cure the above discussed deficiencies of the Okanoya and Hu references. In particular, Applicant submits that the Cross referenc is also silent regarding the limitation of "determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers", as recited in Claim 1 and similarly in Claim 10 (emphasis added). Therefore, Claims 9 and 19 which depend from allowable Independent Claims 1 and 10 respectively are also in condition for allowance as being dependent on allowable base Claims and reciting further features of the present claimed invention.

Moreover, the Examiner is directed to Claim 9 which recites in part, "determining a status of an attribute-based category; and deallocating said attribute-based category form said front-end server to which it is assigned when said status is inactive". Claim 19 recites a similar limitation and was rejected for the same rationale as Claim 9. Per Applicant's understanding the Okanoya and Hu references do not teach or suggest "determining a status of an attribute-based category; and deallocating said attribute-based category form said front-end server to which it is assigned when said status is inactive", as claimed. The Cross reference, per Applicant's

understanding, may teach a switch which removes a client address from a network table if the switch does not detect a data packet within a predetermined time interval (see e.g., col. 6 lines 15-25 of Cross). However, this is very different from, and does not teach or suggest, "determining a status of an <u>attribute-based category</u>", as recited in Claim 9 (emphasis added).

Thus, for this additional reason, Applicant submits that Claims 9 and 19 are not taught or rendered obvious by Okanoya in view of Hu and further in view of Cross, and are therefore overcome the rejection under 35 U.S.C. 103(a) and are in condition for allowance.

<u>Claims 14, 17, and 32</u>

Claims 14, 17, and 32 are rejected under 35 U.S.C. §103(a) as being unpatentable over Okanoya in view of Hu (as applied to Claim 10) and further in view of U.S. Patent 5,864,679 to Kanai et al. (hereinafter the "Kanai" reference). Applicant has reviewed the cited references and respectfully submits that the present invention as recited in Claims 14, 17, and 32 is not rendered obvious by Okanoya in view of Hu and further view of Kanai.

Applicant respectfully submits that Claims 14, 17, and 32 are dependent from Independent Claim 10, which is believed to be allowable over the combination of Okanoya in view of Hu. Applicant further submits that the Kanai reference does not cure the above discussed deficiencies of the combination of the Okanoya and Hu references with respect to independent Claim 10. Specifically, Applicant submits that the Kanai reference does not teach or suggest, "<u>determining whether the transaction is associated with a new attribute-based</u>

category; and assigning the new attribute based category to one of the front-end servers", as recited in Claim 10 (emphasis added).

Per Applicant's understanding the Kanai reference may disclose a transaction unit in which the data arrangement information of a memory device of a transaction processor is used to determine where to route a newly received transaction (see e.g., col. 14, lines 56-65 and Figure 7 of Kanai). Thus, while the Kanai reference may disclose how to route a transaction, Applicant submits that this is very different from, and does not teach or suggest, "determining whether the transaction is associated with a new attribute-based category; and assigning the new attribute based category to one of the front-end servers", as recited in Claim 10 (emphasis added). For this reason, Applicant submits that the combination of Okanoya in view of Hu in further view of Kanai does not teach or render obvious the present claimed invention as recited in Independent Claim 10.

As such Applicant respectfully submits that the combination of Okanoya in view of Hu in further view of Kanai also does not teach or suggest the additional claimed features of the present invention as recited in Claims 14, 17, and 32, which depend from independent Claim 10. Therefore, Applicant respectfully submits that Claims 14, 17, and 32 also overcome the rejection under 35 U.S.C. §103(a), and are in a condition for allowance as being dependent on allowable base claims.

<u>Claim 30</u>

Claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over Okanoya further

in view U.S. Pub. No. 2002/0161917A1 to Shapiro et al. (herein after the "Shapiro" reference).

Applicant has reviewed the cited references and respectfully submits that the present invention as

recited in Claim 30 patentable over the combination of Okanoya in further view of Shapiro.

Applicant respectfully directs the Examiner to independent Claim 30 that recites that an

embodiment of the present invention is directed to (emphasis added):

> A method for routing a transaction to a front-end server, comprising:
> identifying at least one attribute-based category for said transaction;
> attempting to identify at least one of a plurality of front-end servers to
> process said transaction based at least in part on said identified attribute-based
> category of said transaction and at least in part on said front-end servers being
> assigned to execute transactions corresponding to said attribute-based category;
> routing said transaction to one of said at least one identified front-end servers; and
> one or more of said front-end servers,
>> maintaining its own table of attribute-based categories for
> transactions that it has processed;
>> for each attribute-based category in its table, maintaining an
> indication of when a transaction corresponding to the attribute-based
> category was last processed by the front-end server; and
>> <u>after a predetermined time of not processing a transaction</u>
> <u>corresponding to an attribute-based category in its table, broadcasting an</u>
> <u>indication of this event to a plurality of workload managers that can route</u>
> <u>transactions to the front-end server.</u>

Per Applicant's understanding (and as indicated on page 9, paragraph 30 of the present

Office Action (3/20/2007)), the Okanoya reference does not teach a method including, "after a

predetermined time of not processing a transaction corresponding to an attribute-based category

in its table, broadcasting an indication of this event to a plurality of workload managers that can

route transactions to the front-end server", as recited in Claim 30. Therefore, Applicant submits

that Claim 30 is neither taught nor rendered obvious by the Okanoya reference.

Applicant respectfully submit that the combination of the Okanoya reference in view of the Shapiro reference does not teach or suggest the Applicant's invention as recited in Claim 30. The Shapiro reference, per Applicant's understanding, may teach monitoring paths between nodes and updating a routing table with a "goodness value" related to the quality of the path (see e.g., page 6 paragraphs 70 and 71 of Shapiro). However, this is very different from, and does not teach or suggest, "after a predetermined time of not processing a transaction corresponding to <u>an</u> <u>attribute-based category in its table, broadcasting an indication of this event to a plurality of</u> <u>workload managers that can route transactions to the front-end server</u>", as recited in Claim 30 (emphasis added). Thus, the combination of Okanoya in view of Shapiro does not teach or render obvious the Applicant's invention as recited in Claim 30, and this claim overcomes the rejection under 35 U.S.C. §103(a), and is in a condition for allowance.

Claim 31

Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Okanoya in view of Shapiro (as applied to Claim 30) and further in view of Kanai. Applicant has reviewed the cited references and respectfully submits that the present invention as recited in Claim 31 is not rendered obvious by Okanoya in view of Shapiro and in further view of Kanai.

As discussed above, with reference to Claim 30, Applicant submits that the combination of Okanayo in view of Shapiro does not teach or suggest the claimed features of the present invention as recited in Claim 30. Applicant further submits that the Kanai reference does not cure the deficiencies of the Okanayo and Shapiro references. Specifically, Applicant submits

that the Kanai reference does not teach or suggest, "after a predetermined time of not processing a transaction corresponding to <u>an attribute-based category in its table</u>, <u>broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server</u>", as recited in Claim 30 (emphasis added).

Per Applicant's understanding, Kanai may teach deleting old processing history information stored in excess to a prescribed time period or prescribed number of processings (see, e.g., col. 19, lines 38-54). However this is very different from, and does not teach or suggest, "after a predetermined time of not processing a transaction corresponding to <u>an attribute-based category in its table</u>, <u>broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server</u>", as recited in Claim 30 (emphasis added). Thus, Applicant submits that Claim 30 is allowable over the 35 U.S.C. §103(a) rejection to the combination of Okanayo in view of Shapiro and further in view of Kanai.

Therefore Applicant respectfully submits that the combination of Okanayo in view of Shapiro and further in view of Kanai also does not teach or suggest the additional claimed features of the present invention as recited in Claim 31 that depends from Independent Claim 30, and that Claim 31 also overcome this rejection under 35 U.S.C. §103(a) and is in a condition for allowance as being dependent on allowable independent Claim 30.
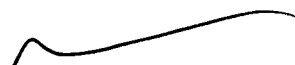
CONCLUSION

In light of the above remarks, Applicant respectfully requests allowance of the now allowable Claims 1 - 6, 8 - 19, and 23 - 26, and 30 - 32.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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